

## REVIEWS

**Flora of Taiwan, Second Edition, Volume 1. Pteridophyta, Gymnospermae,** edited and published by the Editorial Committee of the Flora of Taiwan, 1994. Huang Tseng-Chieng, Editor-in-Chief. ISBN 957-9019-52-5 Taipei, Taiwan, ROC. [Price unknown] 648 pp.

This multiauthor Flora is an update of the first edition published in 1975. It differs primarily by the addition of new color photographs, new line drawings, recently found species, and new distributional records. The most conspicuous addition is the 121 color photographs grouped near the end of the book. These are of high quality, and the Taiwanese pteridologists J-M Hu, S.-J. Moore, J.-L. Tsai, and K.-C. Yang merit mention for having taken first-rate photographs of ferns.

As in the first edition, line drawings are interspersed throughout the text, and there is at least one drawing per genus. Forty-two new drawings have been added, but unfortunately all the drawings, old and new, are not reproduced as sharply as were those in the first edition.

Like the previous edition, this volume does not give information about chromosome numbers or taxonomic literature. Had the latter been done, recent nomenclatural changes and taxonomic information might have been found. For example, the paper by Kuo (Bot. Bull. Acad. Sin. 31: 305–314, 1990) was overlooked, resulting in *Bolbitis scalpturata* (Fée) Ching and *B. ×nanjenensis* Kuo being left out of the Flora. Also, Hennipman's monograph of *Bolbitis* (Leiden Bot. Ser. 2: 1–331, 1977) was apparently not consulted, resulting in the failure to recognize *B. ×laxireticulata* K. Iwats. as a hybrid and maintaining the polyphyletic genus *Egenolfia*. Smith (Novon 2: 418–425, 1992) has shown how *Micropolypodium* Hayata differs from other grammitid ferns, but the new edition of Flora of Taiwan maintains *M. okuboi* (Yatabe) Hayata, the type species of *Micropolypodium*, in the genus *Xiphopteris* without discussion of why and without mention of Smith's paper. Two of the names used in the treatment of *Pyrrosia* were synonymized by Hovenkamp in his monograph of the genus (Leiden Bot. Ser. 9: 1–310, 1986), but this differing nomenclatural treatment is not mentioned. Three *Microsorium* names used in the present volume were synonymized by Bosman in her monograph of that genus (Leiden Bot. Ser. 14: 1–161, 1991), but the difference in treatment is not mentioned. The paper by Iwatsuki (J. Fac. Sci. Univ. Tokyo, sec. 3, 13: 501–551, 1985) was apparently overlooked or ignored, resulting in the omission of many new combinations. It is not mentioned or discussed why Iwatsuki's generic system based chiefly on the Asiatic species of Hymenophyllaceae (Acta Phytotax. Geobot. 35: 165–178, 1984) was not followed.

Although the new edition of Flora of Taiwan contains helpful improvements, much of the pteridophyte taxonomic literature that has appeared since the publication of the first edition has apparently been missed.—ROBBIN C.

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**An Illustrated Fern Flora of West Himalaya, Volume I**, by S. P. Khullar. 1994. International Book Distributors, 9/3, Rajpur Road, Dehra Dun—248001, India. ISBN 81-7089-136-1. [Price unknown] 506 pp.

The flora consists of approximately 325 fern species from the western Himalayas of India and Pakistan, (72°–81°E Long.). Vol. I treats 169 species, 4 varieties, plus 10 hybrids in 28 families, following a finely cut hierarchy of Pichi-Sermolli and Ching. The text is well documented (38 pp. bibliography), easy to read, and arranged in conjunction with 168 plates of line drawings, xerographic halftones, or silhouettes. The absence of halftone photographic images makes spore surfaces difficult to visualize; some illustrations are coarsely drawn, hampering interpretation.

The descriptions are excellent; particularly helpful are the boldface diagnostic features. The keys to families, genera, species or varieties are constructed in a clear manner, facilitating their use. Synonymy, chromosome number, habitat, elevation, and distribution data within and without the region are simply stated, often followed with a taxonomic discussion.

This flora presents the results of over 25 years of collection and research by the author. Efforts to integrate the flora with information on neighboring areas and taxonomic opinions of monographic experts are evident. The book presents a significant contribution that demonstrates how far pteridology has progressed from the alternative floras for the region, all of which were published in the nineteenth century. The writing of this flora was difficult, with types deposited in European herbaria and not easily available to Indian workers, but many researchers are noted for their gracious assistance. The author refers to the work as a "humble beginning"; it is much more than that. It is an excellent contribution that makes a complete fern flora of India closer to reality.—JAMES H. PECK, Department of Biology, University of Arkansas at Little Rock, 2801 S. University Ave., Little Rock, AR 72204.

**Die Moos- und Farnpflanzen Europas**, by W. Frey, J.-P. Frahm, E. Fischer, and W. Lobin. 1995. Gustav Fischer Verlag, New York. ISBN 3-437-30756-8. [Price unknown] 426 pp. In German.

This handy little book contains excellent illustrations and keys to the bryophytes and pteridophytes of Europe. The geographic coverage extends eastward to the Urals, southward to the Bosphorus, and attendant oceanic islands of a conventional definition of Europe. The illustrations are precise, stippled,